

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference IP/P7082/WOD	FOR FURTHER ACTION <small>see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.</small>	
International application No. PCT/GB 03/04841	International filing date (day/month/year) 10/11/2003	(Earliest) Priority Date (day/month/year) 12/11/2002
Applicant QINETIQ LIMITED		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 06 sheets.

☐ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

a. With regard to the language, the International search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international search was carried out on the basis of the sequence listing:

☐ contained in the international application in written form.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority in written form.

☐ furnished subsequently to this Authority in computer readable form.

☐ the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

☐ the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

2. ☐ Certain claims were found unsearchable (See Box I).

3. ☒ Unity of invention is lacking (see Box II).

4. With regard to the title,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the abstract,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the drawings to be published with the abstract is Figure No.

☒ as suggested by the applicant.

☐ because the applicant failed to suggest a figure.

☐ because this figure better characterizes the invention.

03

☐ None of the figures.

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International application No.
PCT/GB 03/04841

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of Item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims, it is covered by claims Nos.:

1-29, 32-34 (when dependent on 1-29)

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. Claims: 1-29, 32-34 (when dependent on 1-29)

segmenting an image by using a property co-occurrence matrix

2. Claims: 30, 31, 32-34 (when dependent on 30, 31)

further analysis of a segmented image

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International Application No.

PCT/GB 03/04841

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 G06F5/00 G06T7/40 G06F19/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 G06T G06F G06K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, COMPENDEX, INSPEC, IBM-TDB, BIOSIS, EMBASE

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	ALIREZA KHOTANZAD ET AL: "A PARALLEL, NON-PARAMETRIC, NON-ITERATIVE CLUSTERING ALGORITHM WITH APPLICATION TO IMAGE SEGMENTATION*" PROCEEDINGS OF THE ASILOMAR CONFERENCE ON SIGNALS, SYSTEMS AND COMPUTERS, PACIFIC GROVE, OCT. 31 - NOV. 2, 1988. TWO VOLUMES BOUND AS ONE, NEW YORK, IEEE, US, vol. VOLS. 1 & 2 CONF. 22, 31 October 1988 (1988-10-31), pages 305-309, XP000130269	1-3, 12-15
Y	abstract	5, 6, 22, 23
A	page 307, left-hand column, paragraph 5 -right-hand column, paragraph 3 --- -/-	4, 7-11, 16-21, 24-29

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

* Special categories of cited documents:

"A": document defining the general state of the art which is not considered to be of particular relevance

"E": earlier document but published on or after the international filing date

"L": document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O": document referring to an oral disclosure, use, exhibition or other means

"P": document published prior to the international filing date but later than the priority date claimed

"T": later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X": document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y": document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"Z": document member of the same patent family

Date of the actual completion of the international search

9 February 2004

Date of mailing of the international search report

29.06.04

Name and mailing address of the ISA

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Engels, A

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C.(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	SCHACHTER B J, DAVIS L S, ROSENFELD A: "Some Experiments in Image Segmentation by Clustering of Local Feature Values" PATTERN RECOGNITION, vol. 11, 1979, pages 19-28; XP002269476	1-3, 12-15
Y	Introduction page 23, left-hand column, paragraph 2	5, 6, 22, 23
A	-page 24, left-hand column, paragraph 2 page 27, left-hand column, paragraph 4 figure 9C	4, 7-11, 16-21, 24-29
Y	US 6 134 354 A (BANNISTER WENDY R ET AL) 17 October 2000 (2000-10-17) abstract column 8, paragraph 2 -column 10, paragraph 4	5, 6, 22
Y	US 6 031 930 A (BACUS JAMES V ET AL) 29 February 2000 (2000-02-29) abstract	22, 23
X	HARALICK R M, SHAPIRO L G: "Computer and Robot Vision I" 1992, ADDISON-WESLEY PUBLISHING COMPANY, READING, MASSACHUSETTS XP002269477 chapters 9.2, 9.3	1
A	HADDON J F ET AL: "CO-OCCURRENCE MATRICES FOR IMAGE ANALYSIS" ELECTRONICS AND COMMUNICATION ENGINEERING JOURNAL, INSTITUTION OF ELECTRICAL ENGINEERS, LONDON, GB, vol. 5, no. 2, 1 April 1993 (1993-04-01), pages 71-83, XP000363820 ISSN: 0954-0695 cited in the application the whole document	1-29

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Information on patent family members

International Application No.

PCT/GB 03/04841

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 6134354 A	17-10-2000	US 5978497 A	02-11-1999
		AU 3629795 A	09-04-1996
		WO 9609605 A1	28-03-1996
		US 6137899 A	24-10-2000
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US 6031930 A	29-02-2000	AU 3812997 A	06-03-1998
		CA 2264059 A1	26-02-1998
		EP 0979486 A1	16-02-2000
		US 2002061127 A1	23-05-2002
		WO 9808185 A1	26-02-1998
		US 6226392 B1	01-05-2001
		US 6396941 B1	28-05-2002
		US 6101265 A	08-08-2000
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